

FIG. 1A

Heavy Chain IgG1 Constant Region

gcctccacca	aggcccac	tttcccc	ctggcaccc	cctccaagag	cacctctgg	60
ggcacagcgg	ccctgggctg	cctggtaag	gactacttcc	ccgaaccgg	gacgggtcg	120
tggactcag	gcgcctgac	cagcggcgt	cacaccc	cggtgtcct	acagtctca	180
ggactctact	ccctcagcag	cgtggtgacc	gtgcctc	gcagcttggg	cacccagacc	240
tacatctgca	acgtgaatca	caagccc	aacaccaagg	tggacaagaa	agttgagccc	300
aaatcttgc	acaaaactca	cacatgccc	ccgtgccc	cacctaact	cctgggggg	360
ccgtcagtct	tcctcttccc	cccaa	aaggacaccc	tcatgatctc	ccggaccc	420
gaggtcacat	gcgtggtggt	ggacgtgagc	cacgaagacc	ctgaggtcaa	gttcaactgg	480
tacgtggacg	gcgtggaggt	gcataatgcc	aagacaa	cgcggagga	gcagtacaac	540
agcacgtacc	gtgtggtcag	cgtcctc	gtcctgc	aggactggct	aatggcaag	600
gagtacaagt	gcaaggtctc	caacaa	ctccc	ccatcgagaa	aaccatctcc	660
aaagccaaag	ggcagcccc	agaaccacag	gtgtacaccc	tgccccatc	ccggatgag	720
ctgaccaaga	accaggtcag	cctgac	ctggtaa	gcttctatcc	cagcgacatc	780
gccgtggagt	gggagagcaa	tggcagcc	gagaacaact	acaagaccac	gcctccc	840
ctggactcc	acggctc	cttc	cttat	agcaagctca	ccgtgacaa	gagcagg
cagcagg	acgtcttctc	atgctc	ctg	atgcatgagg	ctctgcacaa	ccactacacg
cagaagagcc	tctcc	tgtc	tccggtaaa			960
						990

FIG. 1B

ASTKGPSVFP	LAPSSKSTSG	GTAALGCLVK	DYFPEPVTVS	WNSGALTSGV	HTFPAVLQSS	60
GLYSLSSVVT	VPSSSLGTQT	YICNVNHKPS	NTKVDKKVEP	KSCDKTHTCP	PCPAPELLGG	120
PSVFLFPPKP	KDTLMISRTP	EVTCVVVDVS	HEDPEVKFNW	YVDGVEVHNA	KTKPREEQYN	180
STYRVVSVLT	VLHQDWLNGK	EYKCKVSNKA	LPAPIEK	KAKGQP	REPO	240
LTKNQVSLTC	LVKGFYPSDI	AWEWESNGQP	ENNYKTTPPV	LDSDGSFFLY	SKLTVDKSRW	300
QQGNVFSCSV	MHEALHNHYT	QKSLSLSPGK				330

FIG. 2A

Kappa Chain Constant Region

cgaactgtgg	ctgcaccatc	tgtcttcatc	ttcccgccat	ctgatgagca	gttgaatct	60
ggaactgcct	ctgttgtgtg	cctgctaat	aacttctatc	ccagagaggc	caaagtacag	120
tggaaagggtgg	ataaacgcct	ccaatcggtt	aactcccagg	agagtgtcac	agagcaggac	180
agcaaggaca	gcacctacag	cctcagcagc	accctgacgc	tgagcaaagc	agactacgag	240
aaacacaaaag	tctacgcctg	cgaagtcacc	catcagggcc	tgagctcgcc	cgtcacaaaag	300
agcttcaaca	ggggagagtg	t				321

FIG. 2B

RTVAAPSVFI	FPPSDEQLKS	GTASVVCLLN	NFYPREAKVQ	WKVDNALQSG	NSQESVTEQD	60
SKDSTYSLSS	TLTLSKADYE	KHKVYACEVT	HQGLSSPVTK	SFNRGEC		107

FIG. 3A

Heavy Chain IgG2 Constant Region

gcctccacca	agggcccata	ggctttcccc	ctggcgccct	gctccaggag	caccccgag	60
agcacagcgg	ccctgggctg	cctggtaag	gactacttcc	ccgaaccgg	gacgggtgtcg	120
tggactctag	gcgctctgac	cagcggcgtg	cacaccccttcc	cagctgtcct	acagtcctca	180
ggactctact	ccctcagcag	cgtggtgacc	gtgcctccca	gcaacttcgg	cacccagacc	240
tacacctgca	acgttagatca	caagcccagc	aacaccaagg	tggacaagac	agttgagcgc	300
aaatgttgtg	tcgagtgccc	accgtgccc	gcaccacctg	tggcaggacc	gtcagtcttc	360
ctcttcccc	caaaacccaa	ggacaccctc	atgatctccc	ggaccctga	ggtcacgtgc	420
gtgggtgtgg	acgtgagcca	cgaagacccc	gaggtccagt	tcaactggta	cgtggacggc	480
gtggaggtgc	ataatgccaa	gacaaagcca	cgggaggagc	agttcaacag	cacgttccgt	540
gtggtcagcg	tcctcaccgt	tgtgcaccag	gactggctga	acggcaagga	gtacaagtgc	600
aaggtctcca	acaaaggcct	cccagccccc	atcgagaaaa	ccatctccaa	aaccaaaggg	660
cagcccccag	aaccacaggt	gtacaccctg	cccccatccc	gggaggagat	gaccaagaac	720
caggtcagcc	tgacctgcct	ggtcaaaggc	ttctacccca	gcgacatcgc	cgtggagtgg	780
gagagcaatg	ggcagccgga	gaacaactac	aagaccacac	ctcccatgct	ggactccgac	840
ggctccttct	tcctctacag	caagctcacc	gtggacaaga	gcaggtggca	gcaggggaac	900
gtcttctcat	gctccgtgat	gcatgaggct	ctgcacaacc	actacacgca	gaagagcctc	960
tcctgtctc	cggtaaa					978

FIG. 3B

ASTKGPSVFP	LAPCSRSTSE	STAALGCLVK	DYFPEPVTVS	WNSGALTSGV	HTFPAVLQSS	60
GLYSLSSVVT	VPSSNFGTQT	YTCNVDHKPS	NTKVDKTVER	KCCVECPPCP	APPVAGPSVF	120
LFPPKPKDTL	MISRTPEVTC	VVVDVSHEDP	EVQFNWYVDG	VEVHNAAKTP	REEQFNSTFR	180
VVSVLTVVHQ	DWLNGKEYKC	KVSNKGLPAP	IEKTISKTKG	QPREPQVYTL	PPSREEMTKN	240
QVSLTCLVKG	FYPSDIAVEW	ESNGQPENNY	KTPPPMLDSD	GSFFLYSKLT	VDKSRWQQGN	300
VFSCSVMHEA	LHNHYTQKSL	SLSPGK				326

FIG. 4A

Heavy Chain IgG4 Constant Region

gccagcacca	aggggccatc	cgtttcccc	ctggcgccct	gctccaggag	caccccgag	60
agcacagccg	ccctgggctg	cctggtaag	gactacttcc	ccgaaccgg	gacgggtgtcg	120
tggactcag	gcgcctgac	cagcggctg	cacaccccttcc	cggctgtcc	acagtcctca	180
ggactctact	ccctcagcag	cgtggtgacc	gtgccttcca	gcagcttggg	cacgaagacc	240
tacacctgca	acgttagatca	caagcccagc	aacaccaagg	tggacaagag	agttgagtcc	300
aaatatggtc	ccccatgccc	atcatgccc	gcacctgagt	tcctgggggg	accatcagtc	360
ttcctgttcc	ccccaaaacc	caaggacact	ctcatgatct	cccgacccc	tgaggtcacg	420
tgctgtgggg	tggacgtgag	ccaggaagac	cccgaggtcc	agttcaactg	gtacgtggat	480
ggcgtggagg	tgcataatgc	caagacaaag	ccgcggggagg	agcagttcaa	cagcacgtac	540
cgtgtggtca	gcgtcctcac	cgtcctgcac	caggactggc	tgaacggcaa	ggagtacaag	600
tgcaaggct	ccaacaaaagg	cctcccttcc	tccatcgaga	aaaccatctc	caaagccaaa	660
gggcagcccc	gagagccaca	ggtgtacacc	ctggccccc	cccaggagga	gtgaccaag	720
aaccaggta	gcctgacctg	cctggtaaaa	ggcttctacc	ccagcgacat	cgccgtggag	780
tgggagagca	atgggcagcc	ggagaacaac	tacaagacca	cgcctccgt	gctggactcc	840
gacggctcct	tcttcctcta	cagcaggtca	accgtgraca	agagcaggtg	gcaggagggc	900
aatgtcttct	catgtccgt	gakgcatgag	gctctgcaca	accactacac	acagaagagc	960
ctctccctgt	ctctggtaaa	a				981

FIG. 4B

ASTKGPSVFP	LAPCSRSTSE	STAALGCLVK	DYFPEPVTVS	WNSGALTSGV	HTFPAVLQSS	60
GLYSLSSVVT	VPSSSLGKT	YTCNVDHKPS	NTKVDKRVES	KYGPPCPSCP	APEFEGGPSV	120
FLFPPKPKDT	LMISRTPEVT	CVVVDVSQED	PEVQFNWYVD	GVEVHNAKTK	PREEQFNSTY	180
RVVSVLTVLH	QDWLNGKEYK	CKVSNKGLPS	SIEKTISKAK	GQPREPQVYT	LPPSQEEMTK	240
NQVSLTCLVK	GFYPSDIAVE	WESNGQPENN	YKTTPPVLDS	DGSFFLYSRL	TVDKSRWQEG	300
NVFSCSVMHE	ALHNHYTQKS	LSLSLGK				327

FIG. 5A

26F5 Heavy Chain

atggagtttg ggctgagctg ggtcttcctc gttgctcttt taagaggtgt ccagtgtcag	60
gtgcagctgg tggagtctgg gggagggctg gtccagcctg ggaggtccct gagactctcc	120
tgtcagcgt ctggattcac cttcagcaac tatggcatgc actgggtccg ccaggctcca	180
ggcaaggggc tggagtgggt ggcagggcatt tggaaatgatg gaattaataa ataccatgca	240
cactccgtga ggggcccatt caccatctcc agagacaatt ccaagaacac gctgtatctg	300
caaataaca gcccggagacg cgaggacacg gctgtgtatt actgtgcgag agcacggct	360
ttcgactggc tattatttga gttctggggc cagggAACCC tggtcaccgt ctctagt	417

FIG. 5B

MEFGLSWVFL VALLRGVQCQ VQLVESGGGV VQPGRSLRLS CAASGFTFSN YGMHWVRQAP	60
GKGLEWVAGI WNDGINKYHA HSVRGRFTIS RDNSKNTLYL QMNSPRAEDT AVYYCARARS	120
FDWLLFEFWG QGTLVTVSS	139

FIG. 6A

26F5 Kappa Chain

atggaagccc cagctcagct tctcttcctc ctgctactct ggctcccaga taccaccgga	60
gaaattgtgt tgacacagtc tccagccacc ctgtcttgc ctccagggga aagagccacc	120
ctctcctgca gggccagtca gagtgttagc agctacttag cctggtagcca acagaaacct	180
ggccagggtc ccaggctcct catctatgtat gcatccaaca gggccactgg catcccagcc	240
aggttcagtgc cagtgggtc tgggacagac ttcaactctca ccatcagcag cctagagct	300
gaagagtttg cagtttatta ctgtcagcag cgtagcaact ggcctccgct cactttcggc	360
ggagggacca aggtggagat caaa	384

FIG. 6B

MEAPAQQLLFL LLLWLPDTTG EIVLTQSPAT LSLSPGERAT LSCRASQSVS SYLAWYQQKP	60
GQAPRLLIYD ASN RATGIPA RFSGSGSGTD FTLLTISSLEP EDFAVYYCQQ RSNWPPPLTFG	120
GGTKVEIK	128

FIG. 7A

27F2 Heavy Chain

atggagtttgcgcttgcgtttttcc	60
gtgcagctggttggagtctggggaggcg	120
tgtcagtgtctggattcaccttcagtaac	180
ggcaaggggctggagtgggtggcagctata	240
ggctccgtgaggccgattcaccatctcc	300
caaataacaacgcctgagacacg	360
tttgactggtttattttgtatggggc	417

FIG. 7B

MEFGLSWVFLVALLRGVQCQVQLVESGGGVVQPGRSLRLS	60
GKGLEWAAIWNDGENKHAGSVRGRFTISRDNSKNTLYLQMNSLRAEDT	120
FDWLLFEYWGQGTLVTVSS	139

FIG. 8A

15C4 Heavy Chain

atggggtcaa	ccgccccatcct	cgcgcctcc	ctggctgttc	tccaaaggagt	ctgtgccgag	60
gtgcagctga	tgcagtctgg	agcagagggtg	aaaaagcccg	gggagtcct	gaagatctcc	120
tgttaagggtt	ctggatacag	ctttccttc	cactggatcg	cctgggtgcg	ccagatgcc	180
gggaaaggcc	tggagtggat	ggggatcatc	cattctggtg	cctctgtatac	cagatacagc	240
ccgtccttcc	aaggccaggt	caccatctca	gccgacaact	ccaacagcgc	cacctacctg	300
cagtggagca	gcctgaaaggc	ctcggacacc	gccatgtatt	tctgtgcgag	acaaaggaa	360
ctcgactact	ttgactactg	gggcaggga	accctggta	ccgtctctag	t	411

FIG. 8B

MGSTAILALL	LAVLQGVCAE	VQLMQSGAEV	KKPGESLKIS	CKGSGYSFSF	HWIAWVRQMP	60
GKGLEWMGII	HPGASDTRY	PSFQGQVTIS	ADNSNSATYL	QWSSLKASDT	AMYFCARQRE	120
LDYFDYWGQG	TLTVVSS					137

FIG. 9A

15C4 Kappa Chain

atgtcgccat cacaactcat tgggttctg ctgctctggg ttccagcctc caggggtgaa	60
attgtgctga ctcagtctcc agacttcaag tctgtgactc caaaggagaa agtcaccatc	120
acctgcccggg ccagtcaagag cattggtagt agcttacact ggtaccagca gaaaccagat	180
cagtctccaa agtcctcat caagtatgct tcccagtccct tctcaggggt cccctcgagg	240
ttcagtggca gtggatctgg gacagattc accctcacca tcaatagcct ggaagctgaa	300
gatgctgcag cgtattactg tcatcagagt agtagttac ctctcacttt cggcggaggg	360
accaagggtgg agatcaaa	378

FIG. 9B

MSPSQLIGFL LLWVPASRGE IVLTQSPDFQ SVTPKEKVTI TCRASQSIGS SLHWYQQKPD	60
QSPKLLIKYA SQSFSGVPSR FSGSGSGTDF TLTINSLEAE DAAAYYCHQS SSLPLTFGGG	120
TKVEIK	126

FIG. 10

		CDR1	CDR2			
26F5	QVQLVESGGG	VVQPGRLRL	SCAASGFTFS	<u>NYGMHWVRQA</u>	PGKGLEWAG	IWNDGINKYH
27F2	QVQLVESGGG	VVQPGRLRL	SCAVSGFTFS	<u>NYGMHWVRQA</u>	PGKGLEVAA	IWNDGENKHH
15C4	EVQLMQSGAE	VKKPGESLKI	SCKGSGYSFS	<u>FHWIAWVRQM</u>	PGKGLEWMGI	IHPGASDTRY

		CDR3				
26F5	<u>AHSVRGRFTI</u>	SRDNSKNTLY	LQMNSPRAED	TAVYYCARAR	<u>SFDWLLFEFW</u>	GQGTLTVSS
27F2	<u>AGSVRGRFTI</u>	SRDNSKNTLY	LQMNSLRAED	TAVYYCARGR	<u>YFDWLLFEYW</u>	GQGTLTVSS
15C4	<u>SPSFQGQVTI</u>	SADNSNSATY	LQWSSLKASD	TAMYFCARQR	<u>ELDYFDYWGQ</u>	GTLTVSS

FIG. 11

		CDR1	
26F5/27F2	EIVLTQSPAT LSLSPGERAT LSCRASQSVS SYLAWYQQKP GQAPRLLIYD		
15C4	EIVLTQSPDF QSVTPKEKVT ITCRASQSIG SSLHWYQQKP DQSPKLLIKY		
		CDR2	CDR3
26F5/27F2	ASN RATGIPA RFSGSGSGTD FTLTISSLEP EDFAVYYCQQ RSNWPPLTFG		
15C4	<u>ASQSFSGVPS</u> RFSGSGSGTD FTLTINSLEA EDAAAYYCHQ <u>SSSLPLTFGG</u>		
26F5/27F2	GGTKVEIK		
15C4	GTKVEIK		

FIG. 12

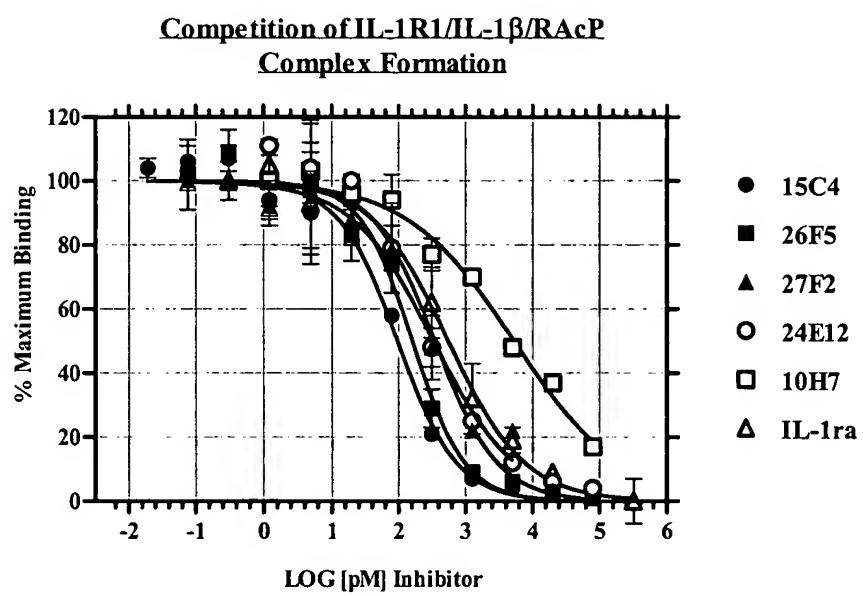


FIG. 13

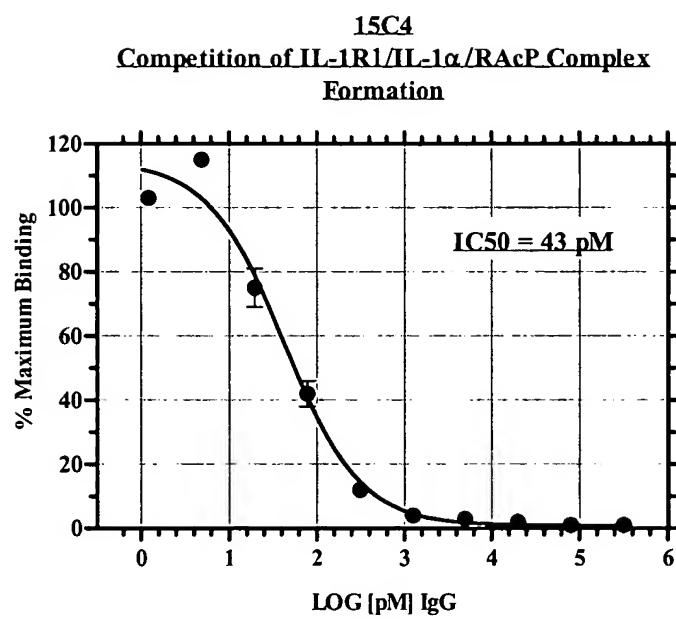


FIG. 14

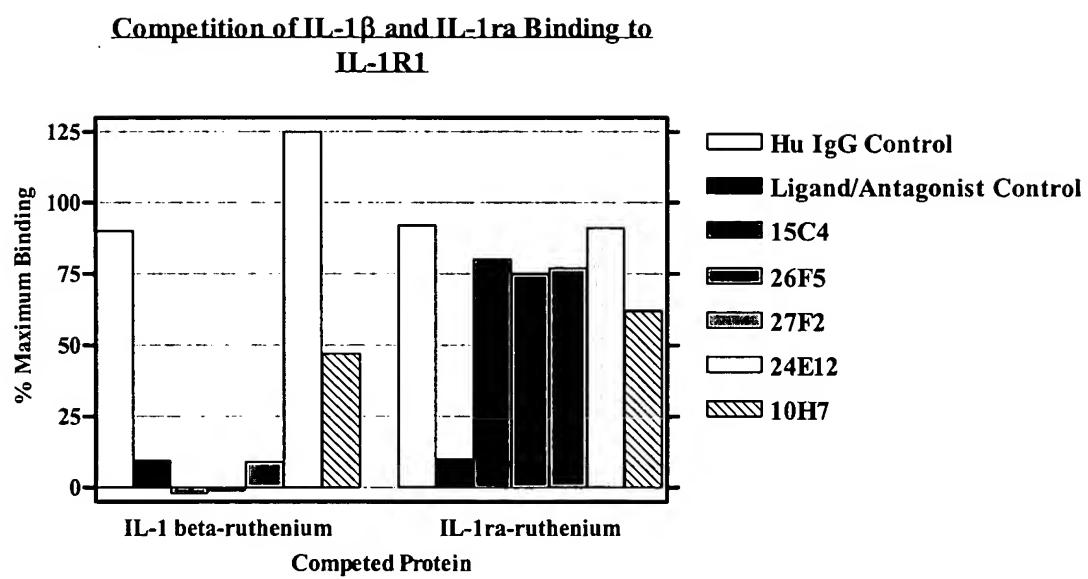


FIG. 15A

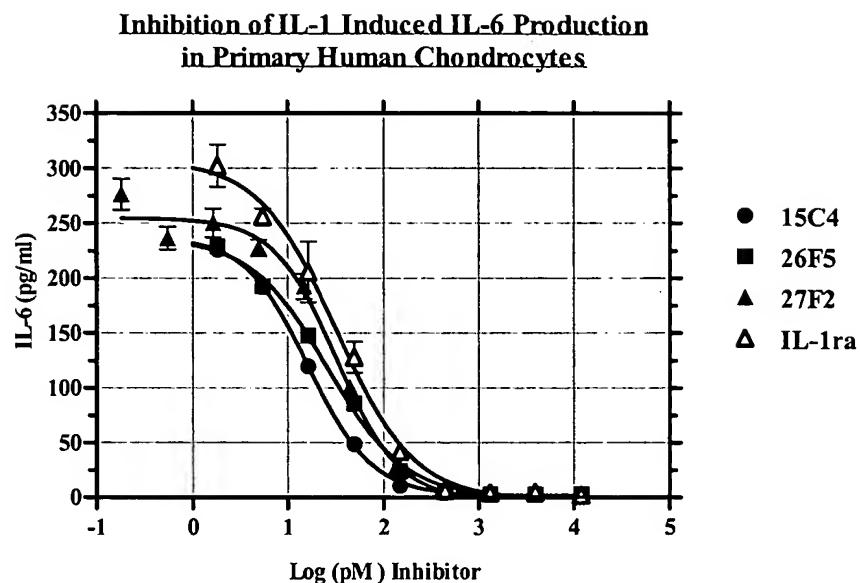


FIG. 15B

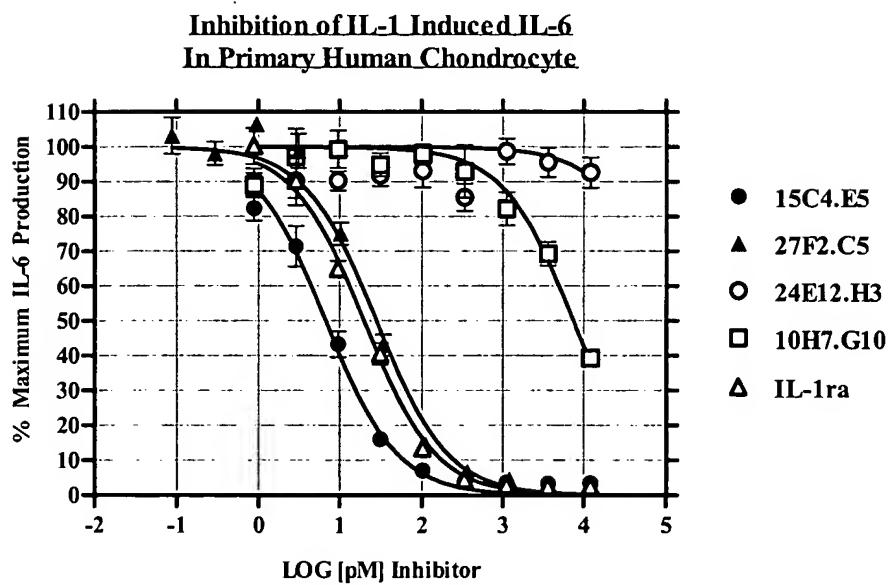


FIG. 16

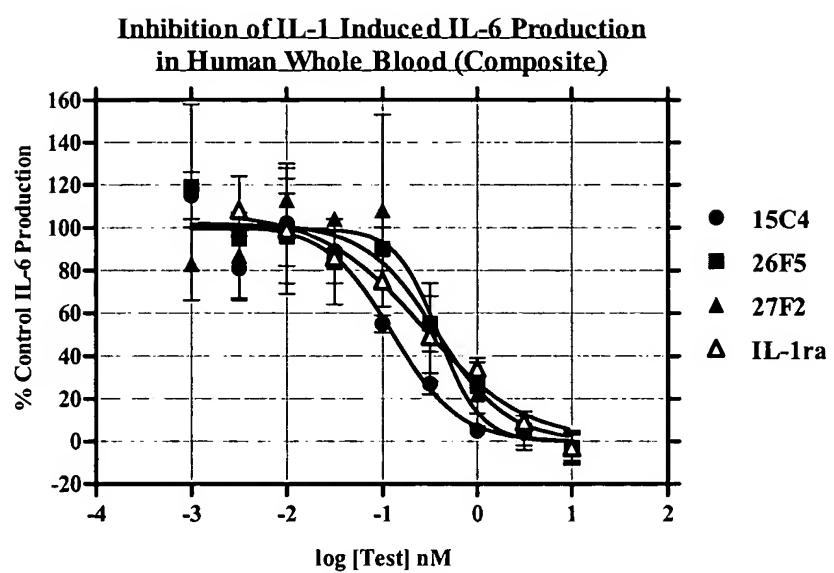


FIG. 17

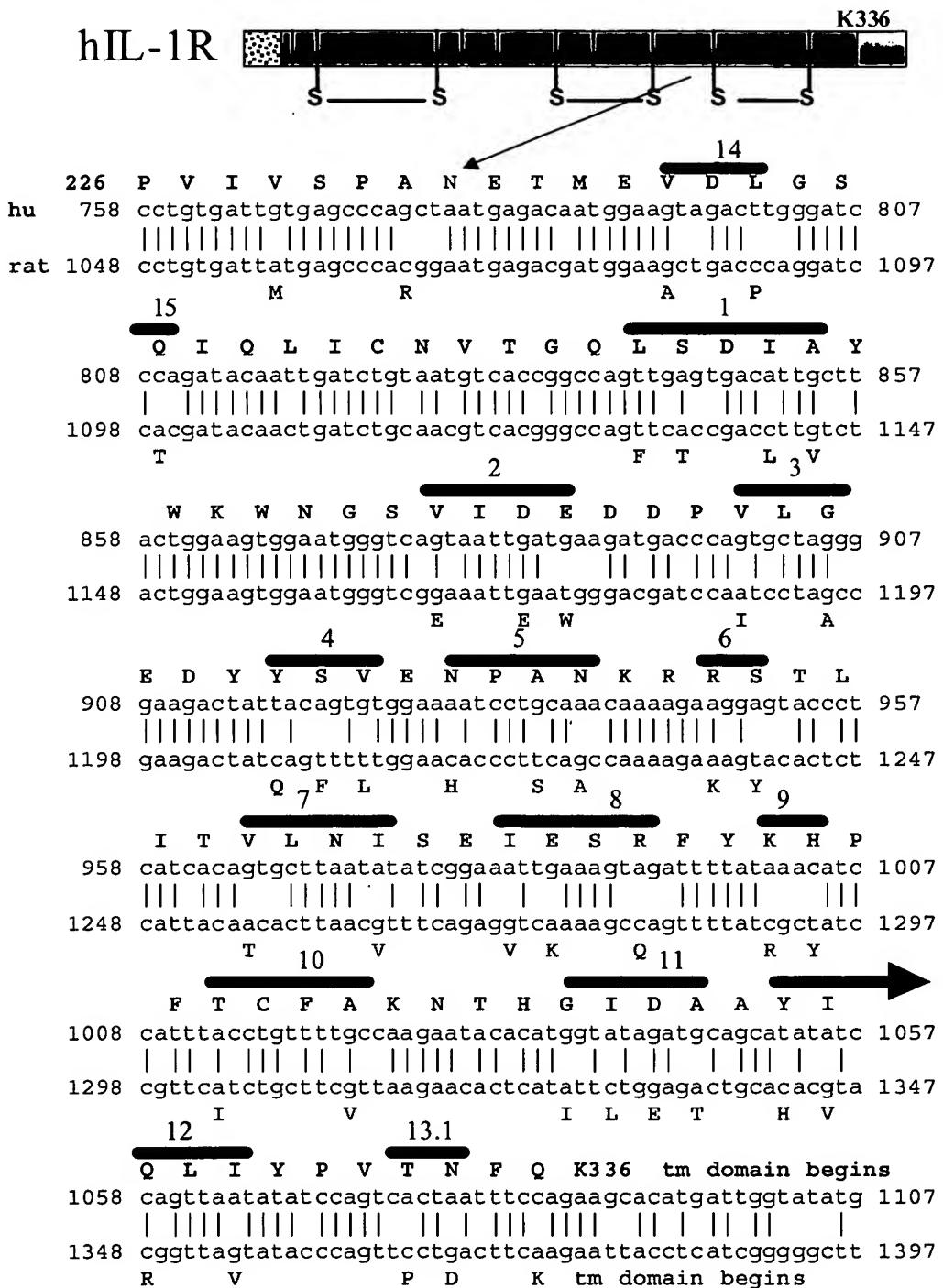


FIG. 18

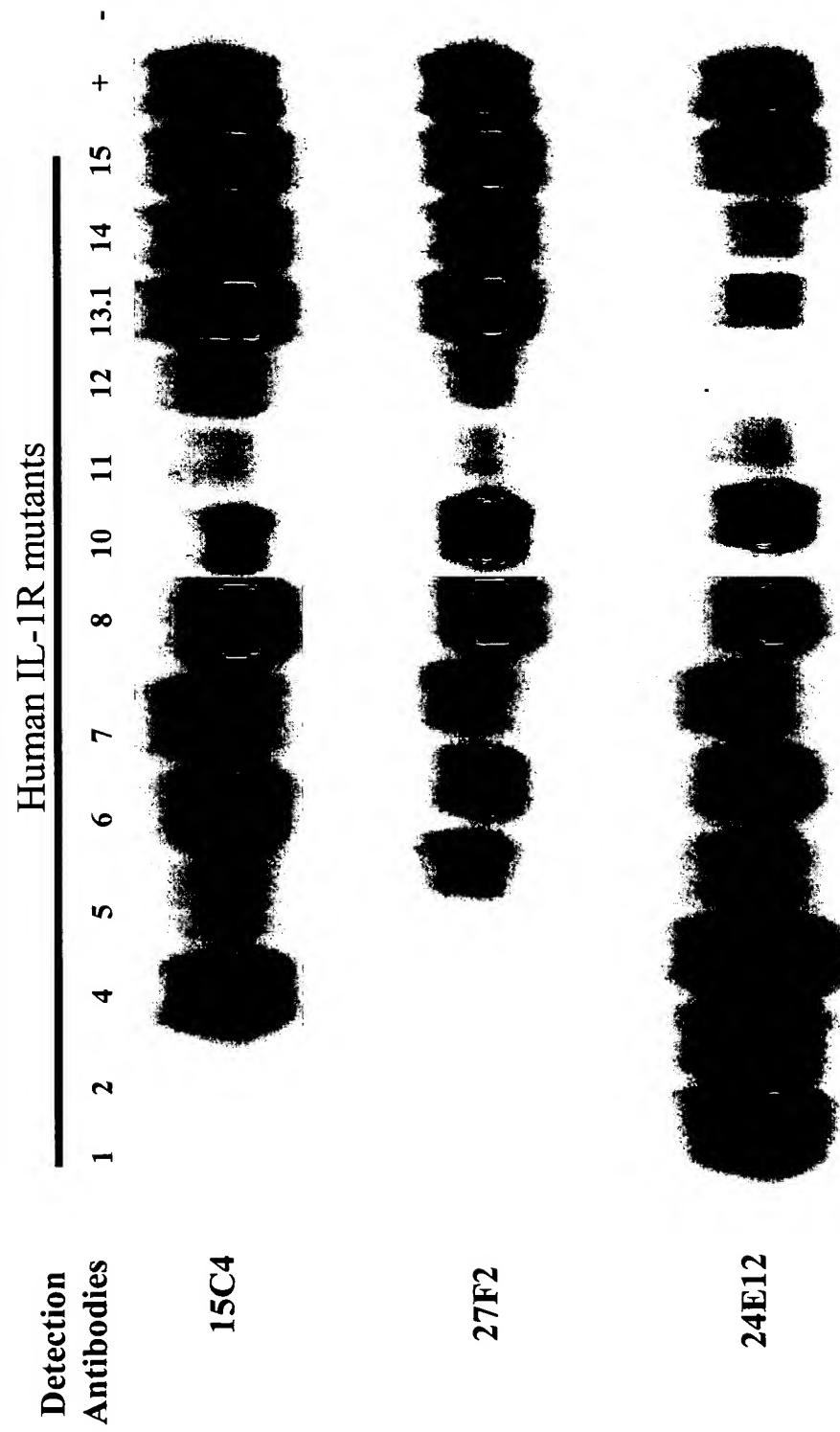


FIG. 19

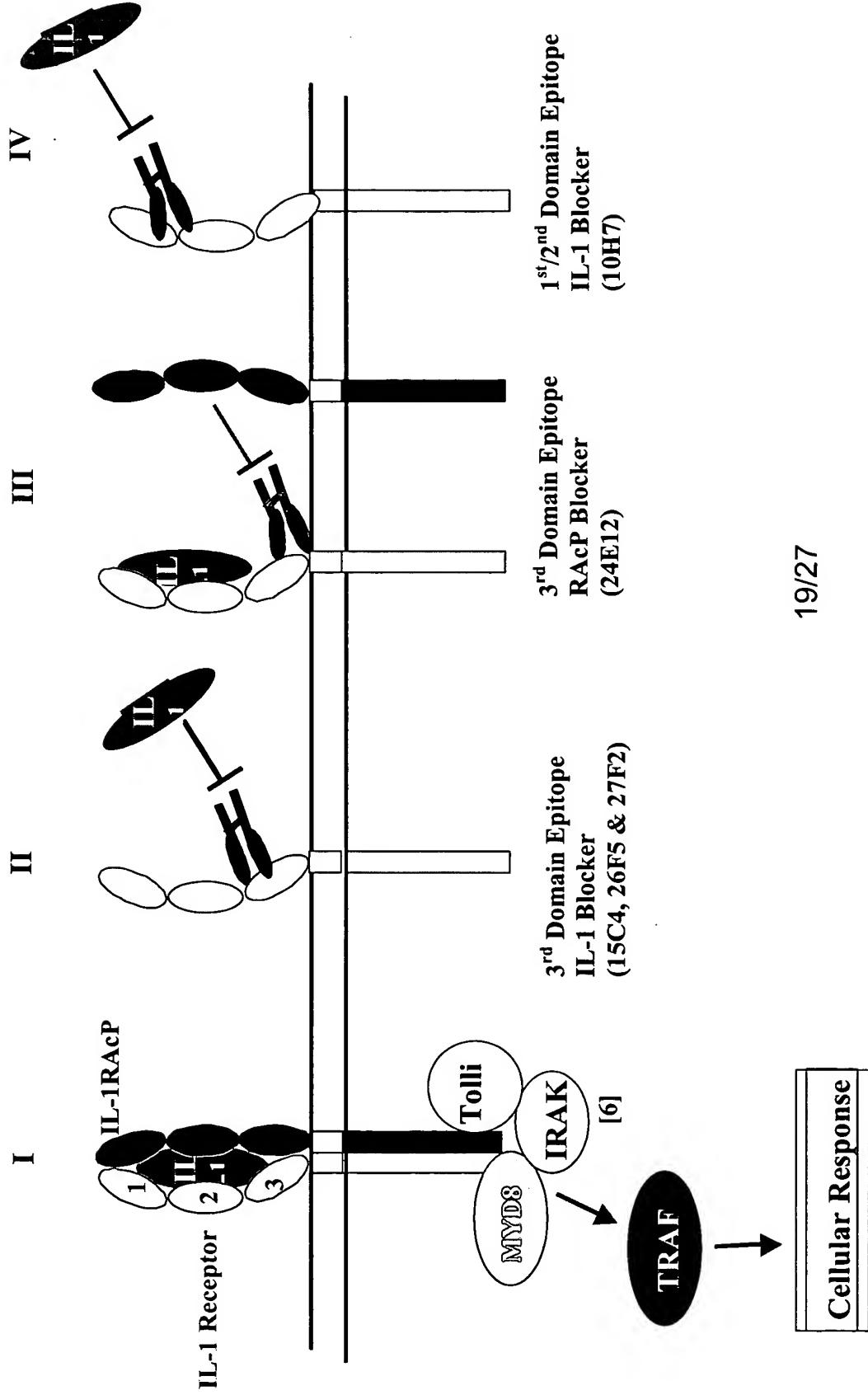


FIG. 20



FIG. 21

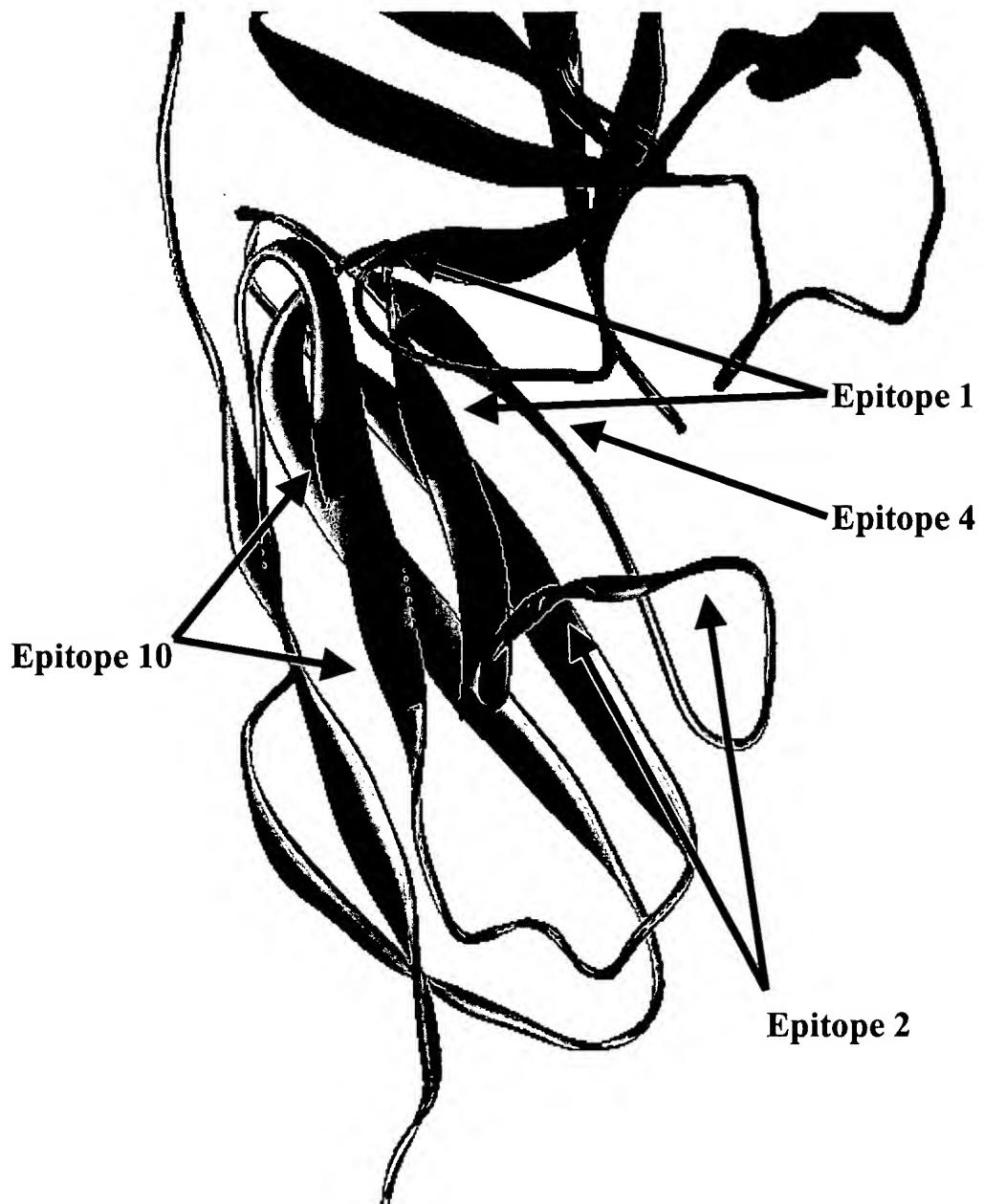


FIG. 22

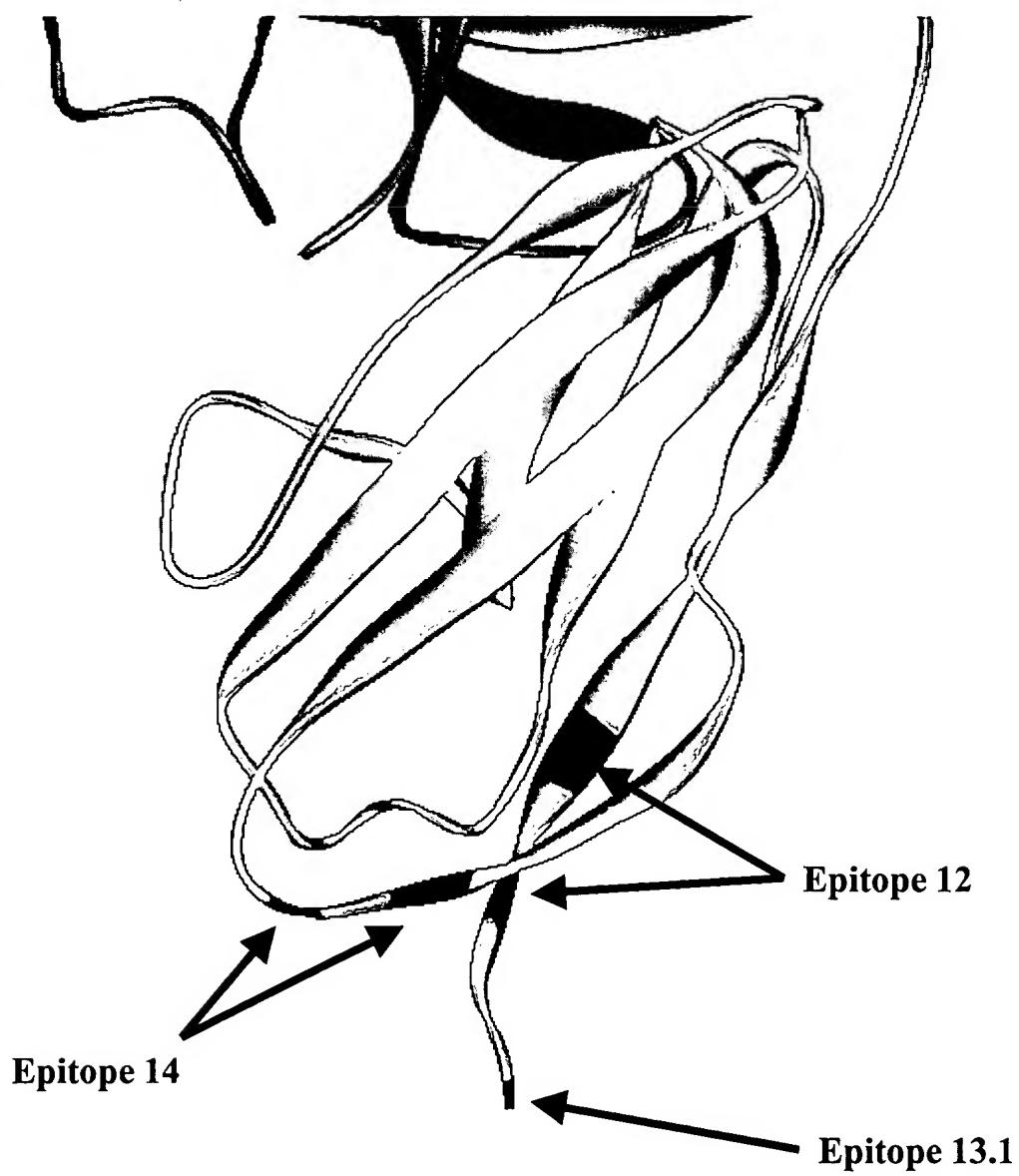


FIG. 23

MVHATSPLLL	LLLLSLALVA	PGLSARKCSL	TGKWTNDLGS	NMTIGAVNSK	GEFTGTYTTA	60
VTATSNEIKE	SPLHGTQNTI	NKRTQPTFGF	TVNWKFSEST	TVFTGQCFID	RNGKEVLKTM	120
WLLRSSVNDI	GDDWKATRVG	INIFTRLRTQ	KEQLLASLLE	ADKCKEREK	IILVSSANEI	180
DVRPCPLNPN	EHKGTTIWYK	DDSKTPVSTE	QASRIHQHKE	KLWFVPAMVE	DSGHYYCVVR	240
NSSYCLRIKI	SAKFVENEPE	LCYNAQAIFK	QKLPVAGDGG	LVCPYMEFFK	NENNELPKLQ	300
WYKDCKPLLL	DNIHFSGVKD	RLIVMNVAEK	HRGNYTCHAS	YTYLGKQYPI	TRVIEFITLE	360
ENKPTRPVIV	SPANETMEVD	LGSQIQLICN	VTGQLSDIAY	WKWNGSVIDE	DDPVLGEDYY	420
SVENPANKRR	STLITVLNIS	EIESRFYKHP	FTCFAKNTHG	IDAAYIQLIY	PVTNFQKDYK	480
DDDDK						485

FIG. 24

FIG. 25A

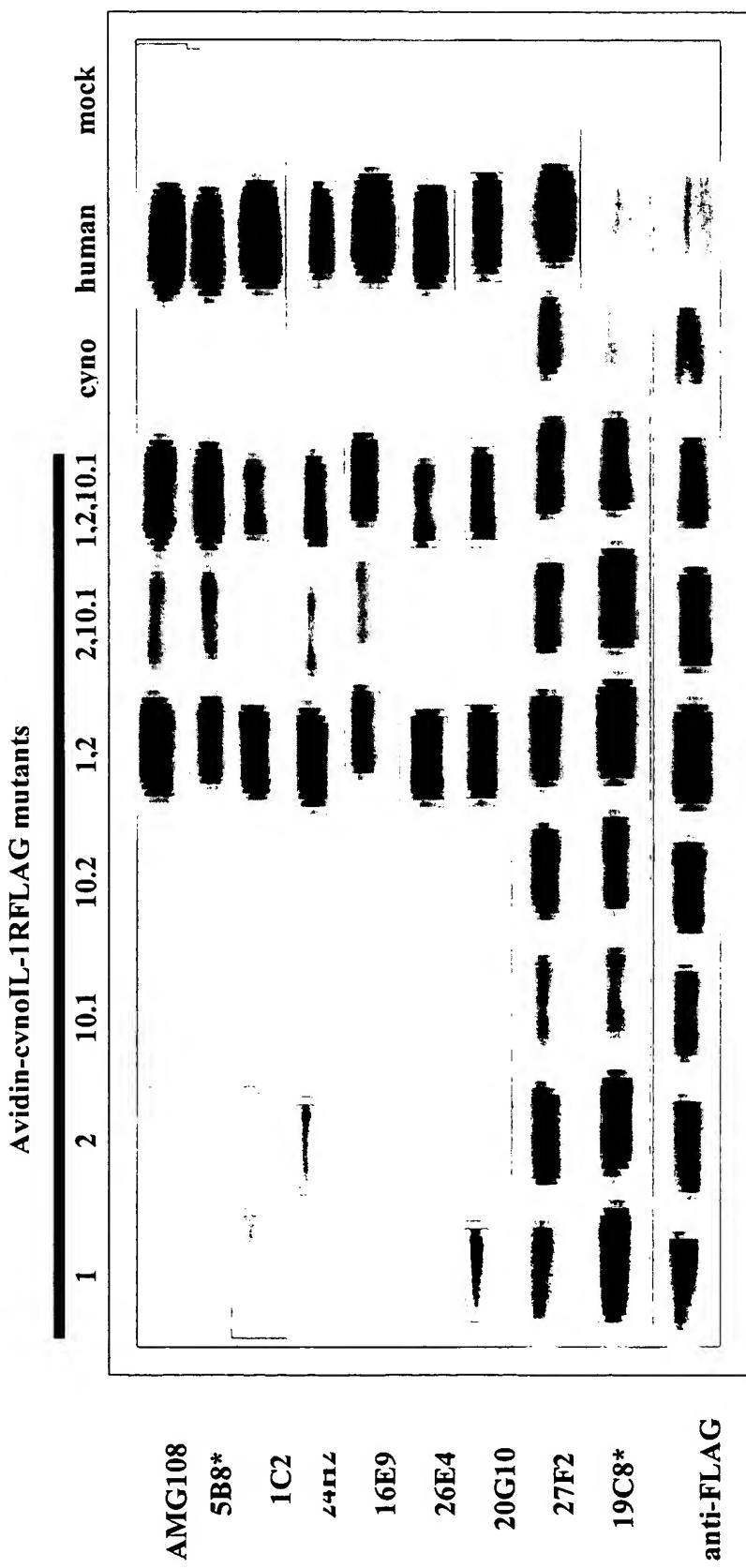
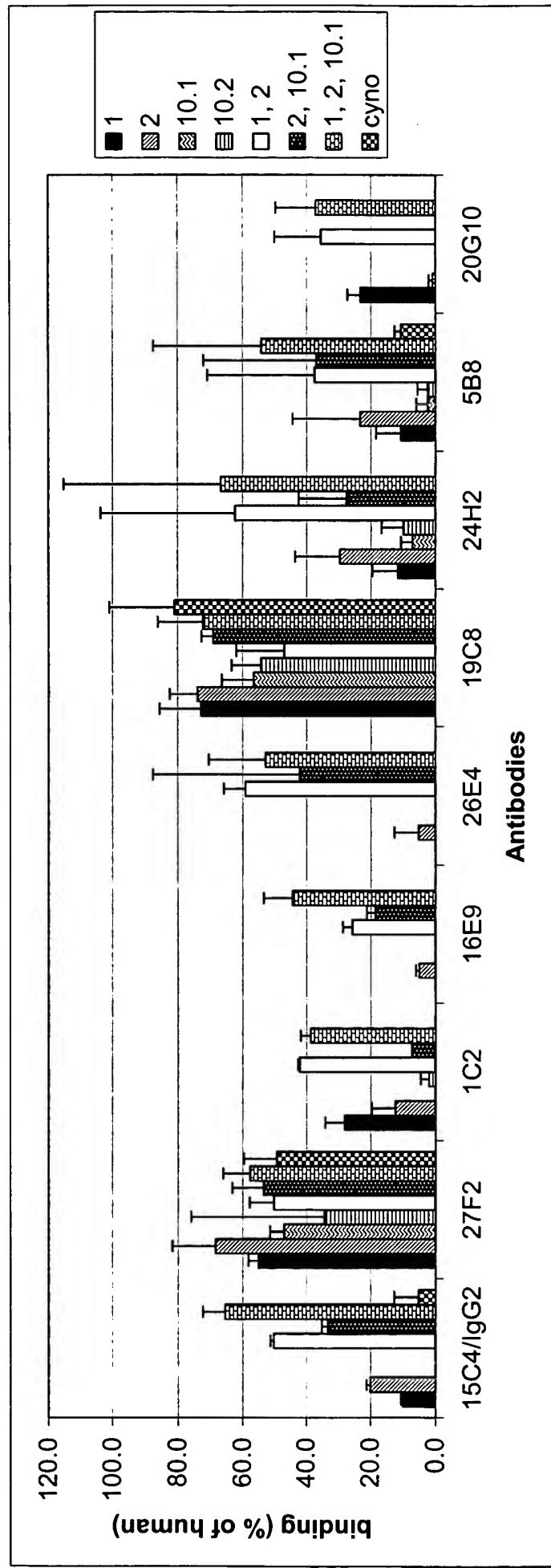


FIG. 25B



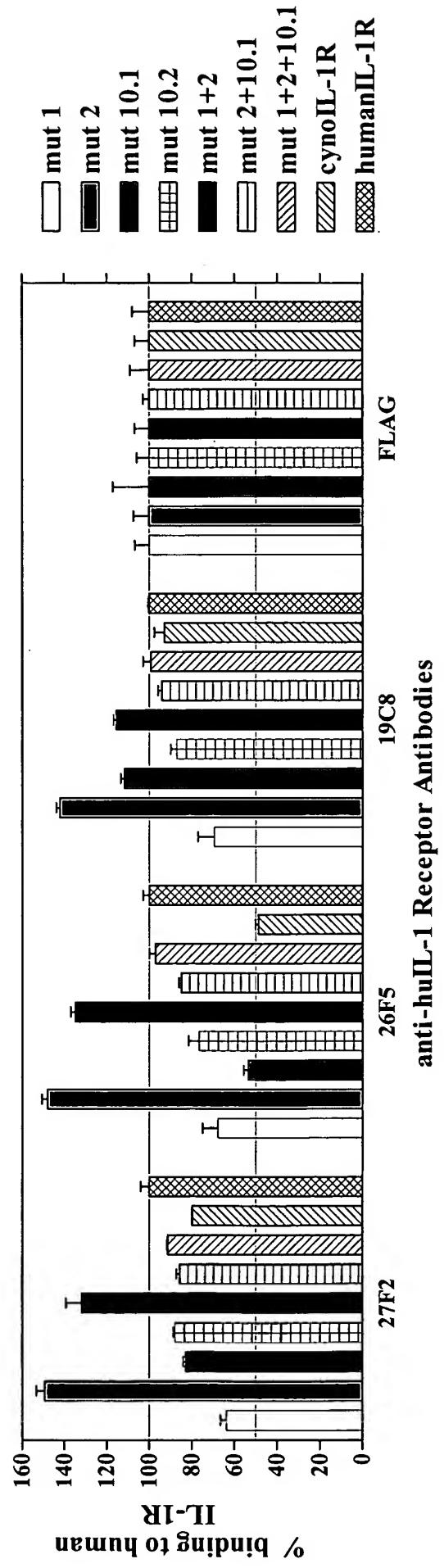
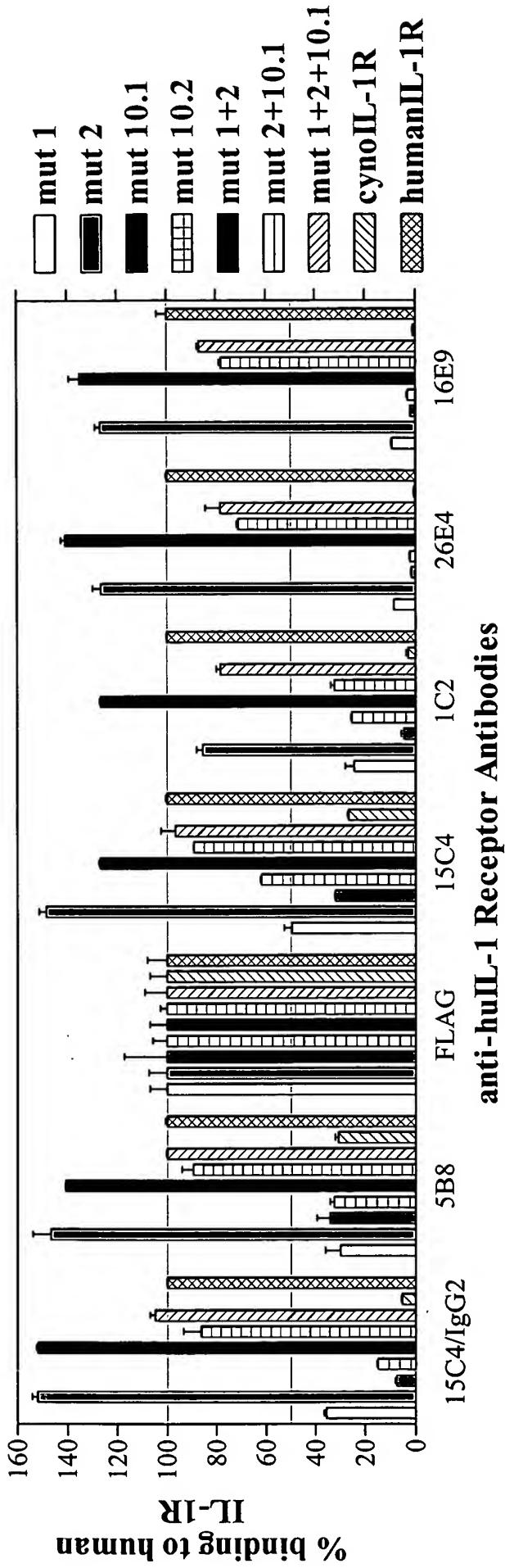


FIG. 26

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